ProSim

The Prosim Knee Wear Simulator: **Machine Specification**

The **Prosim Knee Wear Simulator** is a multi-station machine designed for the reliable and repeatable wear testing of knee and patella implants.

The Prosim Knee Wear Simulator meets the following apparatus requirements:

- **ISO 14243-1 (2009)** – Implants for surgery – wear of total knee-joint prostheses – Part 1: loading and displacement parameters for wear-testing machines with load control and corresponding environmental conditions for test

- **ISO 14243-3 (2014)** – Implants for surgery – wear of total knee-joint prostheses – Part 3: loading and displacement parameters for wear-testing machines with displacement control and corresponding environmental conditions for test

The Prosim Knee Wear Simulator (Independent Stations) includes numerous features and benefits:

- Up to six knee implants can be tested simultaneously

- Five independent axes of articulation for each station

- Single load axis per station

- Each station is equipped with a six-axis loadcell

- Load soak incorporated into each station

- Simple user programmability of any articulation/load cycle

- Operating frequency of motions programmable up to 2.0 Hz

- Capable of running programmed sequences of walking, jogging, running and periods of rest

- Test fluid temperature is maintained at 37°C ±2°C

- Axial loading of up to 5kN per station

- Up to ± 90 degrees of programmable motion on the flexion-extension axis

- Up to ±15mm of programmable anterior

- posterior translation

- Up to ± 30 of programmable motion on the tibial rotation axis

- Up to ±10 of programmable motion on the adduction/abduction axis

- Up to ±10mm of medial/lateral translation

- Able to run both force and displacement control

- Can incorporate deep flexion bending

- Easy to use Windows operator screen

- Realtime logging of position and load allows instant verification of the test cycle

- Clinically and physiologically representative testing